

Application Serial No: 10/790,339
Attorney Docket No.: 51910-CIP (ACT-115-CIP, R&II 04-02CIP)

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Original) A micromachined apparatus comprising:
 - a substrate; and
 - a released microstructure disposed on the substrate, comprising:
 - a dielectric layer, and
 - a conductive polysilicon layer attached to the dielectric layer, wherein the polysilicon layer has a thickness less than 1/5 the dielectric layer thickness.
2. (Original) The apparatus of claim 1 wherein the polysilicon layer contacts and covers the dielectric layer.
3. (Original) The apparatus of claim 1 wherein the polysilicon layer is enclosed within the dielectric layer.
4. (Original) The apparatus of claim 1 comprising an additional polysilicon layer attached to the dielectric layer, and wherein the dielectric layer is sandwiched between the polysilicon layers.
5. (Original) The apparatus of claim 4 wherein the polysilicon layers have equal thickness.
6. (Original) The apparatus of claim 1 wherein the dielectric layer comprises a via hole.
7. (Original) The apparatus of claim 1 wherein the microstructure comprises a cantilever that is attached to the substrate.
8. (Original) The apparatus of claim 1 wherein the microstructure comprises a switch.
9. (Original) The apparatus of claim 1 comprising a conductive pad disposed on the substrate and electrostatically coupled to the polysilicon layer, and wherein the microstructure is capable of being deflected by an electrostatic force applied to the polysilicon layer.

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10. (Original) The apparatus of claim 1 wherein the dielectric layer comprises silicon carbide.
11. (Currently Amended) A micromachined apparatus comprising:
 - a substrate; and
 - a released microstructure disposed on the substrate, comprising:
 - a dielectric layer, and
 - a conductive layer attached to the dielectric layer, wherein the conductive layer has a thickness less than 1/5 the dielectric layer thickness, and wherein the conductive layer is disposed between the substrate and the dielectric layer,
wherein the released microstructure is electrically deflectable with respect to the substrate.
12. (Original) The apparatus of claim 11 wherein the conductive layer contacts and covers the dielectric layer.
13. (Currently Amended) A micromachined apparatus comprising:
 - a substrate; and
 - a released microstructure disposed on the substrate, comprising:
 - a dielectric layer, and
 - a conductive layer attached to the dielectric layer, wherein the conductive layer has a thickness less than 1/5 the dielectric layer thickness, and wherein the conductive layer is enclosed within the dielectric layer,
wherein the released microstructure is electrically deflectable with respect to the substrate.
14. (Previously Presented) A micromachined apparatus comprising:
 - a substrate; and
 - a released microstructure disposed on the substrate, comprising:
 - a dielectric layer,
 - a first conductive layer attached to the dielectric layer, wherein the conductive layer has a thickness less than 1/5 the dielectric layer thickness, and

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a second conductive layer attached to the dielectric layer, and wherein the dielectric layer is sandwiched between the conductive layers,
wherein the released microstructure is electrically deflectable with respect to the substrate.

15. (Previously Presented) The apparatus of claim 14 wherein the first and second conductive layers have equal thickness.

16. (Currently Amended) A micromachined apparatus comprising:

a substrate; and

a released microstructure disposed on the substrate, comprising:

a dielectric layer comprising a via hole, and
a conductive layer attached to the dielectric layer, wherein the conductive layer has a thickness less than 1/5 the dielectric layer thickness,
wherein the released microstructure is electrically deflectable with respect to the substrate.

17. (Original) The apparatus of claim 11 wherein the microstructure comprises a cantilever that is attached to the substrate.

18. (Original) The apparatus of claim 11 wherein the microstructure comprises a switch.

19. (Original) The apparatus of claim 11 wherein the dielectric layer comprises silicon carbide.

20. (Currently Amended) A micromachined apparatus comprising:

a substrate; and

a released microstructure cantilever disposed on the substrate, comprising:

a silicon carbide dielectric layer, and
a conductive layer attached to the dielectric layer, wherein the conductive layer has a thickness less than 1/5 the dielectric layer thickness,
and wherein the conductive layer is disposed between the substrate and the dielectric layer,

wherein the released microstructure is electrically deflectable with respect to the substrate.

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Amendments to the Drawings:

The attached sheet of drawings includes changes to Fig. 10. Specifically, Figure 10 has been relabeled as "Fig. 10a" and a new Figure, "Fig. 10b", has been added. This sheet, which includes Figures 10a, 10b and 11, replaces the original sheet including Figures 10 and 11.

Attachment: Replacement Sheet